

Texas Board of Professional Engineers Professional Licensure

Webinar October, 2014



Welcome

- Lance Kinney, P.E.
 - Executive Director
 - Lance.Kinney@engineers.texas.gov
- David Howell, P.E.
 - Deputy Executive Director
 - <u>David.Howell@engineers.texas.gov</u>



Webinar Info

- Webinar audio can be through your computer speakers or through the phone.
- All attendees will be in Listen-only mode.
- Questions will be handled in writing through the webinar software and answered by the presenter.
- If there are questions, not addressed, please email the presenter.
- During the presentation, use the Question feature in the webinar software, not the chat feature or the hand raising feature.



Welcome



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 - Executive Director
 - Lance.Kinney@engineers.texas.gov





David Howell, P.E.

- Deputy Executive Director
- <u>David.Howell@engineers.texas.gov</u>



Agenda

- Overview of Engineering Practice Act
- Benefits of Licensure
- Exams / CBT
- Application Process



Who is the TBPE

- Created by Texas Legislature (45R) in 1937
 - New London School Explosion
- Established to Protect the Public
 - Licensing Engineers
 - Enforcement of Engineering Practice Act
 - Requiring Continuing Education
 - Educate PEs, Officials, Potential PEs, Public
- Board Interprets and Implements Act through Rules





1937
Engineering for a better Texas

TBPE



Engineering for a better Texas



Protect the Public

Licensing Engineers

- The 3 "E"s of licensure
 - Education
 - Experience
 - Exams
- Engineering Competence is gained by Education and Experience; Measured by FE and PE examinations



Public Perception

Did you know???

Only about 20% of US engineers are licensed.

Bureau of Labor Statistics (2013)

- 178,000 engineers in Texas (20% w/ Active licenses)
 - Civil 23,500 in Texas (70% w/ Active licenses)
 - Petroleum 20,000 in Texas (11% w/ Active licenses)
 - Industrial 15,000 in Texas (2% w/ Active licenses)



Benefits of Licensure

- Serves as a protection of public health, safety, and welfare.
- It shows you have accomplished a recognized standard.
- Makes you equal with other professionals. Many other professions require that you are licensed to practice.



Benefits of Licensure

- Sets you apart from others in your profession.
 (Marketability)
- "Portable" credential you can keep throughout your career.
- Law Only Licensed Engineers Can Offer Services to the General Public
- Required for Some Positions



Benefits of Licensure

- Much More than Just Passing an Exam!
- Increased Responsibility and Authority.
- You Will be in Responsible Charge of Your Engineering Projects.
- You Will be Held Accountable for Your Actions as an Engineer.



Standard Licensure Process Flow

- 4 Year Degree
- FE Exam
- Work Experience
- Apply for licensure and permission to take PE Exam
- PE Exam
- PE License



Requirements for Licensure

Education

Experience

Examinations



Education

- EAC/ABET Accredited Engineering Programs
 - Degrees approved for Canadian Licensure, Washington Accord, and CAEI (Mexico) are considered EAC/ABET equivalent
- Non-Accredited Programs Including Non-ABET Engineering Degrees and Related Science degrees (Math, Sciences, ETAC/ABET Engineering Technology)
- Information concerning ABET accreditation available at www.abet.org.



Experience

- 4 Years of creditable engineering work with ABET Accredited engineering Degree or equivalent
- 8 Years with Non-Accredited Degree or qualifying Related Science degree
- Board Rule 133.43 for Evaluation criteria and guidance
- 1 year experience credit for an advanced engineering degrees from ABET accredited programs with undergrad in engineering.



Examinations

Fundamentals of Engineering (FE)

 Principles & Practices of Engineering (PE)



FE - Computer Based Testing

- All FE exams starting January 1, 2014
- Continuous Registration
- Register at <u>www.NCEES.org</u>
- Price \$225
 - includes test center seat, examination, and results release
- Testing windows
 - January–February, April–May, July–August, October–November
- Pearson VUE testing centers
- NCEES will release results directly to examinees within 7–10 days.



CBT FE Exam - Format

- 110 questions
- 6-hour test center appointment
 - Tutorial–8 minutes
- Maximum Exam time—5 hours, 20 minutes
 - Scheduled break–25 minutes
- Exam and searchable reference on computer / Split screen
- Specific Approved Calculators
- Security No Other Books or References, phones, iPads, etc.



NCEES CBT Resources

- www.NCEES.org
- CBT exam-day experience video release
- Short "how to" videos
 - How to search the FE Reference Handbook
 - Hotkeys
 - Onscreen calculator
 - Reusable booklet for scratch work
 - How to flag items for review



Engineer in Training Certification

- Some Employers Want EIT Certification. Demonstrate Applicant is on the Path to Licensure
- Optional Not Required for PE exam.
- Procedure:
 - Application form and \$15 fee
 - Official Transcripts (degree evaluation, if foreign)
 - Exam Verification if taken outside of Texas



PE Exam - Format

- Paper and Pencil
- Four Texas exam sites
- Multiple Choice (except Structural Exams)
- 80-100 Questions Total
- Breadth Section ~ 40 questions in morning session (same for all examinees in discipline)
 - Civil, Mechanical, etc.
- Depth Section ~40 questions in afternoon session (depend on module selected)
 - Civil/structural, Civil/environmental, Civil/water resources, etc.
- OPEN BOOK!



PE Exam

- PE Exams are offered twice per year (April / October)
- Register through NCEES after approval of Application (www.NCEES.org)
- Registration open ~6 months before exam
- Be aware of registration and application deadlines!
- http://engineers.texas.gov/lic exam dates.htm

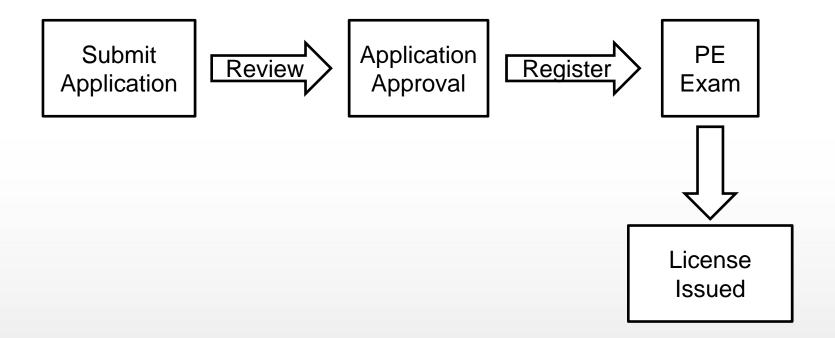


Exams

- FE Exam no application. Just sign up. Must be within 2 semesters of graduating.
- FE Exam may take as many times as necessary.
- PE Exam must apply to board first.
- PE Exam may take 4 times (consecutive opportunities).



Application Process

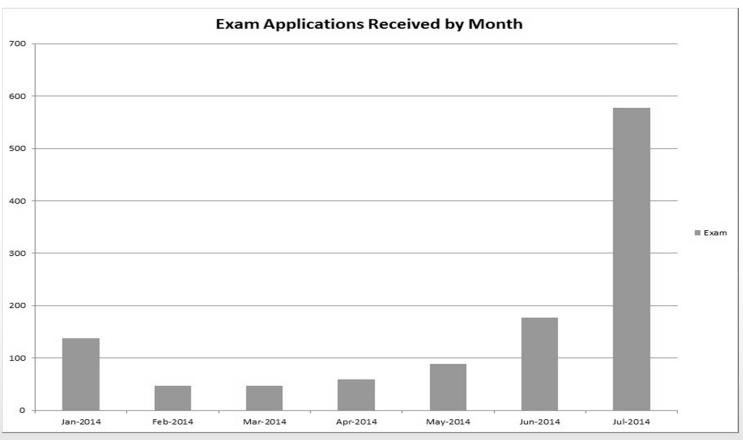




- http://engineers.texas.gov/
- One application for Licensure and to take PE Exam
- Online or Download forms
 - Online credit card fee payment
 - Download and mail with check
- Apply as soon as possible Don't Wait!
 - No need to wait for the deadline
 - Avoid the workload surge

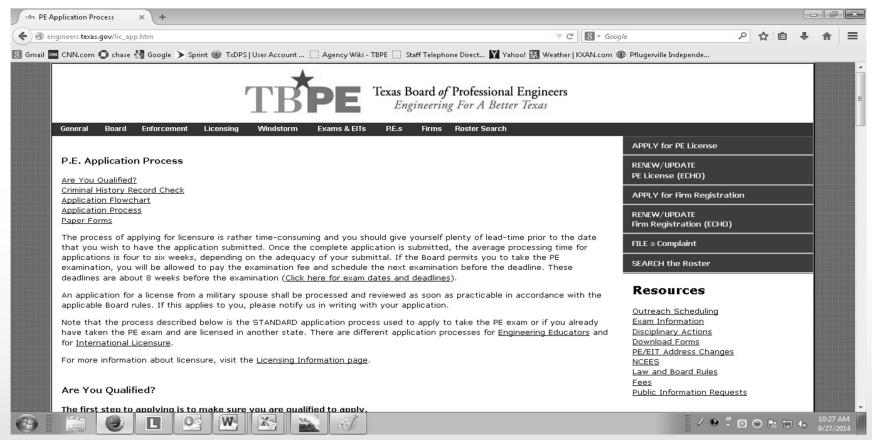






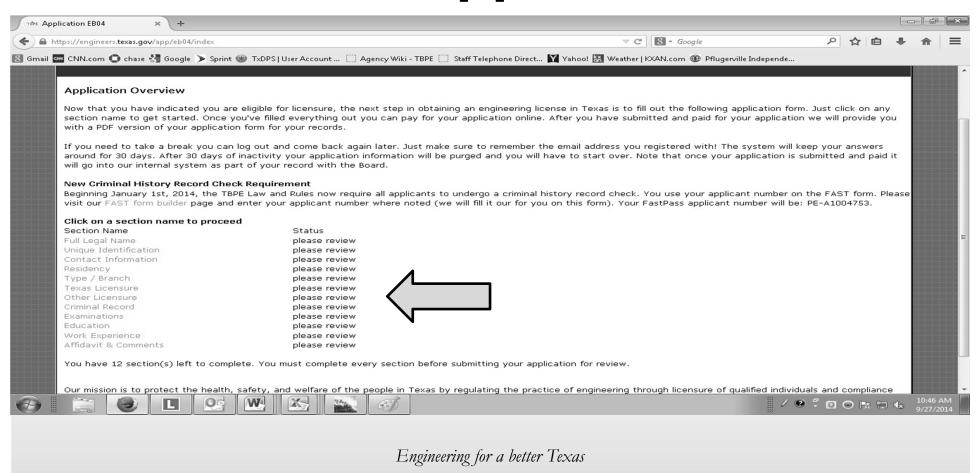
Engineering for a better Texas







Online Application





Online Application

Click on a section name to proceed

Section Name

Full Legal Name Unique Identification Contact Information

Residency

Type / Branch

Texas Licensure

Other Licensure

Criminal Record

Examinations

Education

Work Experience

Affidavit & Comments

Status

please review



- Identification Information
- Qualifications Summary
 - Complete the application
- No hand-written applications
- Exam waiver requests
- Engagement List
 - All periods of employment or unemployment in chronological order since your first degree
 - Engagement Number will be used on other application documents.





TBPE Application for Licensure David Howell

EXPERIENCE

List below in chronological order, all places of employment or unemployment, starting with the receipt of your first engineering degree, accounting for all periods of time. Your earliest employment is Engagement 1, etc. An engagement is one employer. A change in employer is a new engagement. DIFFERENT PROJECTS, SUPERVISORS, OR POSITIONS/PROMOTIONS HELD IN THE SAME CAPACITY FOR ONE EMPLOYER ARE NOT CONSIDERED SEPARATE ENGAGEMENTS. DO NOT LIST CONCURRENT OR OVERLAPPING ENGAGEMENTS. IF NECESSARY TO DO SO, CONCURRENT AND OVERLAPPING ENGAGEMENTS MUST BE EXPLAINED ON A SEPARATE SHEET OF PAPER.

Provide the name, address, and telephone number of someone familiar with your work for each engagement, preferably the person to whom you reported. If you were unemployed, provide the name of an individual who can verify status. If you are/were self-employed, do not give yourself as a reference, but give the name and address of be none familiar with your work. Each of the individuals listed may be contacted; therefore, it is important that you lish a complete mailing address, zip code and phone number.

the present date under "To" on latest engagement. DO NOT use "present".

#	Dates	Engagement	Experience (years & months)	Contact
1	From:05/01/1989 To: 12/31/2000	Firm: ABC Company Position: Engineer Address: 12345 Main, Nowhere, Texas	Engineering: 9y, 1mo Non-Engineering: 2y, 6mo	Name: John Doe Phone: 512 123 4567
2	From:01/01/2001 To: 04/31/2001	Firm: unemployed Position: Address:	Engineering: Non-Engineering: 0y, 4 mo	Name: Elizabeth Howell Phone: 325 123 9876
3	From:05/01/2001 To: 10/14/2014	Firm: DEF Consulting Position: Partner Address: 999 Home St, Earth, Texas	Engineering: 13y, 5mo Non-Engineering:	Name: Jane Smith Phone: 210 987 1234
4	From: To:	Firm: Position: Address:	Engineering: Non-Engineering:	Name: Phone:



Education Documentation

- Transcripts
 - Originals Directly from Institution for each engineering degree (for any Institution with 15 semester hours)
- Foreign Degree Evaluation (non-ABET, not Washington Accord)
 - Five Board-approved evaluation companies
 - http://engineers.texas.gov/lic_eval_toefl.htm
- If previously submitted for EIT in Texas, no need to resubmit



FE Exam Waivers – Board Rule 133.69

- Board Discretion, not Automatic
- Additional progressive Engineering Experience required
- Additional favorable PE references required
- May not request within 2 years of failing



Application

- Supplementary Experience Records
- Reference Statements
- Ethics Evaluation
 - Online and paper versions available
 - For online, submit the passing results page
 - 90% passing score required
- Fees
 - Application Fee \$80 (paid with application)
 - Professional Fee \$200 (paid when license is ready to be granted)



Supplementary Experience Record (SER)

- Detailed description of engineering work
- Distinguish work personally performed from group efforts
- Project record or diary
- Form is available on TBPE Website



Page _	of	nagge
rage_		pages

Texas Board of Professional Engineers SUPPLEMENTARY EXPERIENCE RECORD

(Refer to the instructions and example provided before completing this form. Only one copy of this form has been provided. Please make additional copies as required.)

Applicant's Full Name: ____ Applicant's Date of Birth: _

To(date):				
Name of Emp Engineering S	loyer and Locatior Supervisor's Name	n:		
Describe:				
-			the best of my know	



Supplementary Experience Record (SER)

- Experience can be obtained in Texas, other States, or Overseas
- Internships, Co-ops may be creditable if More than Three Months in Duration (Board Rule 133.43(b))
- No credit for time associated with obtaining education
- No credit for Teaching Assistant work



PE References

- 3 PE References Required for your Work Experience
 - 5 for a waiver of the FE
- Minimum 1 PE Reference for each engagement
 - All claimed engineering experience
- Fill out form / Sign SER pages
 - Must address Personal Character, Readiness for Licensure and vouch for the Engineering Experience
- Can be licensed in any state / May be inactive



Texas Board of Professional Engineers REFERENCE STATEMENT

(BEFORE COMPLETING THIS FORM, PLEASE READ THE REFERENCE STATEMENT INSTRUCTIONS. ONLY ONE COPY OF THIS FORM HAS BEEN PROVIDED.
PLEASE MAKE ADDITIONAL COPIES OF THIS FORM AS REQUIRED.

TO BE COMPLETED BY APPLICANT

	ngagement#
Firm/Company Name:	
From (Date):	
Applicant's Full Legal Name: _	
Applicant's Date of Birth:	
TO BE	COMPLETED BY REFERENCE PROVIDER
	ns 133.51, 133.53 and 133.55 of the rules. Reference statements are to release to the applicant nor the Texas Public Information Act. You may rovide more information.
Reference Provider's Name (1	Typed or Printed):
	ate & Zip:
Business Phone:	
P.E. No.:	ensure is: (State):
Expiration Date:	
Other Professional Engineer L	.icenses Held:
And contractional to the particular contract to	nan Texas, provide copy of pocket card or other verification)
Reference Evaluation is:	☐ Character & Personal Knowledge of Work Described in of SER [Be sure to sign the SER]
	☐ Character & Review of SER only for Purpose of Reference Statement [Be sure to sign the SER]
1. How long have you known t	the applicant?

2. Are you related to the applicant? If so, how?	□No	☐ Yes	
Was/is your relationship with the applicant Please explain:		nal?	☐ Business?
Dates of business relationship: From:	To:		
The Texas Engineering Practice Act states the engineering shall provide evidence of good prof Board, is sufficient to insure that the individual of in any practice setting. Such evidence shall estable to think and act rationally, is able to keep pown behavior. How would you describe the appropriate the setting to the engineering of the setting that the set	fessional cha can consister tablish that the promises and	racter and ntly act in the ne person honor ob	d reputation which, in the judgment of the the best interest of clients and the public is able to distinguish right from wrong, is ligations, and is accountable for his/her
5. Do you know of anything that would negative professional engineer?		applicant's □ Yes	
What have you observed that convinces you education, training, and experience in the pract			/has not) adequately applied engineering
7. Do you believe that the applicant's experienc standard of quality and responsibility, to provide recommended for a license? Please explain and add additional comments:		ofessiona	growth for the applicant to be
Based on your knowledge and observations, competency to be placed in responsible charge Please explain and add additional comments:			
Reference Provider's Signature:			



PE References

- All references are confidential
- References can be directly sent to the board or collected and sent with the application
- Keep track of names, contact info for possible PE references
- It is possible to get a reference in advance (from a job you have left, etc.)
- You can have a PE review prior work if no current PE is available

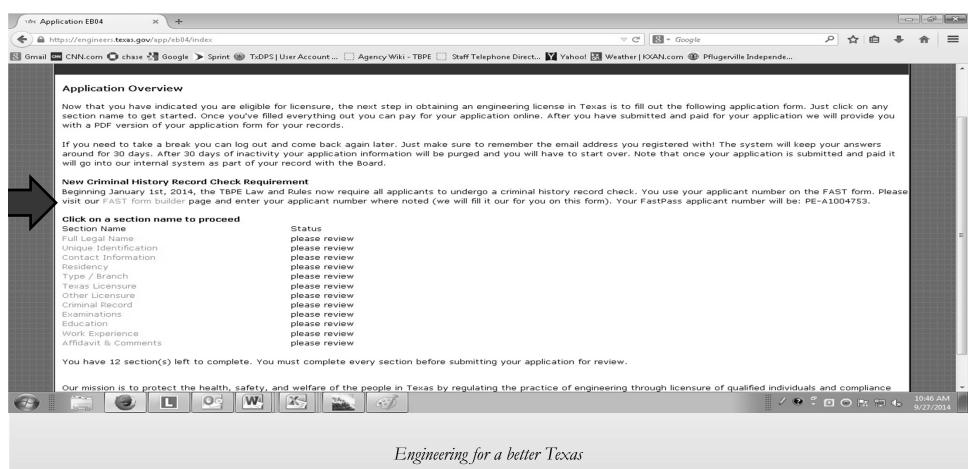


Application

- Other
 - Criminal History Records Check
 - Requires FAST form and Applicant Number
 - Documentation of English Proficiency
 - If education was not in English
 - Verification of Examinations (if taken in another state)
 - https://verify.ncees.org/



Application





General Board Enforcement Licensing Windstorm Exams & EITS P.E.s Firms Roster Search

Get your FAST form

Have you already submitted your PE application, and now you just need to get your FAST form? Then please check your <u>application status</u> to get your Applicant number and FAST form.

If you haven't applied for licensure yet, you can <u>apply here</u>. Once you do that, you'll get an Applicant number and will be directed back here to get your FAST Form.

If you already have an Applicant number, please enter it and your last name below.

Applicant Number: A 1004753 (example: A1001234)

Last Name: Howell

In Texas or Out of State?: • In Texas • Out of State

Get FAST Form

For more details on the Criminal History Record Check requirement, please check out our <u>Criminal History Record Check overview page</u>.

Our mission is to protect the health, safety, and welfare of the people in Texas by regulating the practice of engineering through licensure of qualified individuals and compliance with the laws and rules.

1917 S Interstate 35, Austin, TX 78741 | Phone: 512-440-7723 | Fax: 512-442-1414 | info@engineers.texas.gov

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IN STATE APPLICANT

Texas Board of Professional Engineers

This document is your FAST Fingerprint Pass for a state and national criminal history record check. Please schedule a fingerprint appointment by visiting http://www.identogo.com or by calling 1-888-467-2080. When scheduling an appointment you will be prompted by IdentoGO for the following additional personal data: Date of Birth, Sex, Race, Ethnicity, Skin Tone, Height, Weight, Eye Color, Hair Color, Place of Birth and Home Address. During your Fingerprint appointment you will also be prompted for Social Security Number and Driver License Number. Requested data is required by the Texas Department of Public Safety to process your background check. These data elements have been omitted from this document in order to better protect the security of your personal information.

You may pay for FAST services online with a credit card or onsite with a check or money order only. Your fingerprints will be submitted to the Texas Department of Public Safety and the Federal Bureau of Investigation.

- 1. Logon to http://www.identogo.com
- 2. Select: Texas
- 3. Select: Online Scheduling 4. Select: English or Espanol
- 5. Enter: First and Last Name
- 7 Enter: PF-A1004753
- 8. Follow the prompts to enter requested information.
- 9. Bring this completed form with you to your appointment.

6. Select: Texas Board of Professional Engineering				
Section One: Qualified Entity Information				
ORI#: TX923654Z	Application ID: PE-A1004753	Original TCN:		
			(if resubmission for rejected fingerprints)	
Agency/Entity/Organization Name: <u>Texas Board of Professional Engineers</u>				
Section Two: Applicant Name (To be completed by applicant)				
Last: Howell	First: David	4	Middle:	
			mado.	
0 41 Th 144 1				

I certify that all information I provided in relation to this criminal history record check is true and accurate. I authorize the Texas Department of Public Safety (DPS) to access Texas and Federal criminal history record information that pertains to me and disseminate that information to the designated Authorized Agency or Qualified Entity with which I am or am seeking to be employed or to serve as a volunteer, through the DPS Fingerprint-based Applicant Clearinghouse of Texas and as authorized by Texas Government Code Chapter 411 and any other applicable state or federal statute or policy. I authorize the Texas Department of Public Safety to submit my fingerprints and other application information to the FBI for the purpose of comparing the submitted information to available records in order to identify other information that may be pertinent to the application. I authorize the FBI to disclose potentially pertinent information to the DPS during the processing of this application and for as long hereafter as may be relevant to the activity for which this application is being submitted. I understand that the FBI may also retain my fingerprints and other applicant information in the FBI's permanent collection of fingerprints and related information, where all such data will be subject to comparisons against other submissions received by the FBI and to further disseminations by the FBI as may be authorized under the Federal Privacy Act (5USC 552a(b)). I understand I am entitled to obtain a copy of any criminal history record check and challenge the accuracy and completeness of the information before a final determination is made by the Qualified Entity. I also understand the Qualified Entity may deny me access to children, the elderly, or individuals with disabilities until the criminal history record check is completed. If a need arises to challenge the FBI record response, you may contact the agency that submitted the information to the FBI, or you may send a written challenge request to the FBI's Criminal Justice Information Services (CJIS) Division at FBI CJIS Division, Attention: Correspondence Group, 1000 Custer Hollow Road, Clarksburg, WV 26306.

Section Four: Service Center Inform	nation (To be completed by FAST Enrollment Agent)
Date Prints Taken:	Amount Charged For Service:\$41.45
	r []Visa []Mastercard []Billing Acct
	SOVERNMENT-ISSUED IDENTIFICATION PRESENTED BY THE APPLICANT AND ATTEST THAT TO MY BES' FINGERPRINTED THE SAME PERSON.
E.A. Name:	E.A. Signature:



Update on NCEES

- CBT Implementation for FE working toward PE
- PE Exam changes
 - Software Engineering
 - Exam restructuring
- Some US states allowing early PE exam
- Industry Exemption discussions
- August 2014 BS+30/Masters Or Equivalent concept removed from Model law to be a Position Statement



Social Media

- Facebook: Texas Board of Professional Engineers **E**
- Twitter: TBPE Exec



- LinkedIn: Texas Board of Professional Engineers
- RSS Feed available on our website: engineers.texas.gov



We want to hear from you

- How did we do today?
- How are we doing in general?

http://engineers.texas.gov/outreachsurvey http://engineers.texas.gov/feedback



Contact TBPE

- 1917 S Interstate 35
- Austin, TX 78741
- Phone: 512-440-7723
- Web: http://engineers.texas.gov
- Licensing@engineers.texas.gov